

SYSTEM AND METHOD FOR PREDISTORTING A SIGNAL USING CURRENT AND PAST SIGNAL SAMPLES

ABSTRACT OF THE DISCLOSURE

5 A predistortion system uses a predistortion function which is a combination of functions which are dependent on one of a plurality of time spaced samples of the input signal and independent of the other samples. Using such a structure for the predistortion function enables an easier and low cost implementation. For example, a plurality of time spaced samples are used by predistortion circuitry to produce the

10 predistorted signal. The predistortion circuitry includes first function circuitry which produces a current sample output value depending on a current input sample and independent of a delayed input sample. A second function produces a delayed sample output value depending on the delayed input sample and independent of the current input sample. Each of any additional functions produces an additional delayed sample

15 output value depending on an additional delayed input sample and independent of any other input samples. The sample output values are combined to produce the predistorted sample.